

REMARKS

Claims 1-41 are presented for consideration. Claims 1, 20, 22, 23 and 33 are independent.

The independent claims have been amended to further distinguish Applicant's invention from the cited art.

Claims 1-3, 5-8, 13, 14, 20, 22-24, 29, 31, 33-36, 40, and 41 stand rejected under 35 U.S.C. § 103 as allegedly being obvious over Abe '436. The remaining claims stand rejected as allegedly being obvious over Abe in view of Sato, et al. '940 (Claims 4, 12, 30, and 39), Nakai '971 (Claims 9 and 32), Preston '369 (Claims 15-17, 21, 25, and 26), Shen '900 (Claims 18, 19, 27, and 28) or Millward '366 (Claims 10, 11, 37, and 38). These rejections are respectfully traversed.

Claim 1 relates to an image display apparatus comprising an image signal generating unit for generating an image signal and an image display element for displaying an image on a screen according to the image signal inputted from the image signal generating unit. When the screen is divided into a portion in which the image is to be displayed and a dark display portion in which no image is to be displayed, non-dark display is performed in the dark display portion for a predetermined time period from a start time of display control until a start time of a process for terminating a display control. As amended, the predetermined time period is set such that, even when the non-dark display is performed for the predetermined time period, a non-dark display cannot be recognized by a viewer.

Claim 20 relates to an image display apparatus having an image signal generating unit and an image display element, wherein when the screen is divided into a portion in which gradation display is to be performed and a bright display portion in which the gradation

display is not to be performed, bright display is continuously performed while dark display is performed for a predetermined time period in the bright display portion from a start time of display control until a start time of a process for terminating the display control. The predetermined time period is set such that, even when the dark display is performed for the predetermined time period, the dark display cannot be recognized by a viewer.

In Claim 22, a method of driving an image display apparatus includes the steps of displaying a multi-level gradation image in a predetermined area of a screen where a multi-level gradation image is to be displayed and performing dark display in another predetermined area of the screen where a multi-level gradation image is not to be displayed, and performing non-dark display in the other predetermined area for a predetermined time period from a start time of display control to a start time of a process for terminating the display control. The predetermined time period is set such that, even when the non-dark display is performed for the predetermined time period, the non-dark display cannot be recognized by a viewer.

Claim 23 relates to an image display apparatus comprising an image signal generating unit and an image display element. When the screen is divided into an effective image area in which various images are to be displayed and a non-effective image area in which no effective image is to be displayed, dark display is continuously performed while bright display is performed for a predetermined time period in the non-effective image area. The predetermined time period is set such that, even when the bright display is performed for the predetermined time period, the bright display cannot be recognized by a viewer.

Lastly, Claim 33 is directed to a method of driving an image display apparatus that displays images on a screen by performing bright display and dark display according to an image signal that is generated by image signal generating unit and is inputted into an image

display element. The method includes the steps of dividing the screen into an effective image area in which various images are to be displayed and a non-effective image area in which no effective image is to be displayed, and continuously performing dark display while performing bright display for a predetermined time period in the non-effective image area. The predetermined time period is set such that, even when the bright display is formed for the predetermined time period, the bright display cannot be recognized by a viewer.

In accordance with Applicant's claimed invention, an image display apparatus and method of driving an image display apparatus can be effective against image burn-in.

As discussed in the previous Amendment on November 19, 2004, the patent to Abe relates to a television receiver set capable of displaying text. As shown in Figures 13A-13D, the displayed television shows a main section where the image is displayed and a blank zone, or dark display portion, where no image is displayed.

In paragraph 9 (page 6) of the Office Action, it is asserted that Abe teaches performing a non-dark display for a predetermined time period that is set so when the non-dark display is performed for a time period not longer than the predetermined time period, reduced visual interference to a viewer results and image burn-in is avoided. It is respectfully submitted, however, that Abe shows in Figure 13A a television screen in letter box format with upper and lower blank zones. Figures 13B and 13C illustrate a modified format for a character enlarging mode, and Figure 13D shows an ordinary teletext mode when the upper and lower blank zones are combined at the bottom of the screen. As shown, however, the characters are displayed in the dark display portions, i.e., the blank zones, and intended to be recognized by a viewer (see column 11, lines 14-29). It is respectfully submitted, therefore, that Abe does not teach or suggest performing a non-dark display that cannot be recognized for a predetermined time

period.

Abe similarly fails to teach or suggest an image display apparatus and image display method as set forth in independent Claims 20, 22, 23, and 33.

Accordingly, reconsideration and withdrawal of the rejection of Claims 1-3, 5-8, 13, 14, 20, 22-24, 29, 31, 33-36, 40 and 41 under 35 U.S.C. § 103 is respectfully requested.

The secondary citations fail to compensate for the deficiencies in Abe as discussed above. In this regard, Sato relates to a liquid crystal device and was cited for teaching an image reversal. Nakai relates to a picture display region discriminating apparatus and was cited for its teaching of performing a non-dark display for a signal corresponding to a low gradation. Preston is directed to a holographic display system and was cited for its teaching of an image display element being a spatial modulation element that uses a liquid crystal. Shen relates to a display screen and was cited for its teaching of an LED. Lastly, Millward is directed to a spatial light modulator and was cited for its teaching of a non-dark display that is cyclically performed under frequency of 50 Hz.

Accordingly, without conceding the propriety of modifying Abe in view of one or more of the secondary citations, the combinations still fail to teach or suggest Applicant's claimed invention. Therefore, reconsideration and withdrawal of the remaining rejections under 35 U.S.C. § 103 are respectfully requested.

Therefore, it is submitted that Applicant's invention as set forth in independent Claims 1, 20, 22, 23, and 33 is patentable over the cited art. In addition, dependent Claims 2-19, 21, 24-32 and 34-41 set forth additional features of Applicant's invention. Independent consideration of the dependent claims is respectfully requested.

The Amendments to the claims were not presented earlier as it was believed

the previously presented claims would be found allowable. This Amendment does not add any additional claims. Moreover, the Examiner's familiarity with the subject matter of the present application will allow an appreciation of the significance of the amendments herein without undue expenditure of time and effort. Finally, the amendments do not raise new issues requiring further consideration and/or search. Accordingly, it is submitted that entry of the Amendment is appropriate.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



Attorney for Applicant
Scott D. Malpede
Registration No. 32,533

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

SDM/vnm/tmm

DC_MAIN 204942v1